

Appendix A

Total Asset Visibility

Need lead in when this FM is updated.

IN-TRANSIT VISIBILITY, COMMUNICATIONS SUPPORT, AND AUTOMATIC IDENTIFICATION TECHNOLOGY

A-1. The DTAV plan, established in April 1992, provides a phased implementation of key policies, procedures, systems, and related communications technologies required by operators and logisticians for essential visibility of DOD materiel assets. The DTAV concept uses many existing systems and commercial "off-the-shelf" software to track the location, quantity, and condition of selected major end items, reparable, ammunition, and other support items.

A-2. The concept of TAV originates from a larger DOD initiative known as the IRP. As one of the encompassing logistical processes, the IRP involves downsizing materiel inventories while maintaining materiel readiness and combat sustainability. To be successful, DTAV must provide users with the aggregate logistical visibility needed to conduct operational and maintenance planning. In meeting this requirement, the DTAV plan has been developed to effectively integrate and focus management and resources on those key visibility requirements that have the greatest potential to improve operational support and reduce inventory levels.

IN-TRANSIT VISIBILITY

A-3. ITV is the capability, through the range of military operations, to identify and track the movement of defense cargo, passengers, medical patients, and personal property from origin to final destination. As a key component of the DTAV plan, ITV plays a large role in providing updated information to enhance the logistics support in wartime, contingencies, and peacetime. Workable efforts such as these will constitute the management of timely and accurate logistical information (for example, visibility over in-storage; in-process; and in-transit) on specific commodities from cradle to grave.

A-4. The conceptual automated process leading to this capability consists of gathering and maintaining timely and accurate source movement data. The timeliness and accuracy of data within management systems depends on the communications systems used to convey the data throughout the system and the frequency with which the data must be re-entered into the system. Ideally, data should be entered once into the system and then perpetuated throughout the automation continuum via the communication system.

A-5. The first and foremost technological component required to enhance ITV within the Army is a seamless automated management system, including assured communications which supports transportation functions from origin to destination.

A-6. The GTN system is being fielded to support and integrate DOD ITV capability. Although presently not fully operational, the GTN's success and continued development are dependent on accurate source movement information provided through the many automated transportation information systems in development or already operational. Other initiatives of importance to the GTN development and ITV capability include the fielding of Service transportation automated information systems, implementing electronic data interchange standards and conventions, developing a communications network to link DOD shippers and commercial carriers, modifying transportation procedures, and introducing automatic identification technologies into the transportation automation continuum.

A-7. USTRANSCOM serves as the DOD functional proponent for the GTN and the ITV portion of the overall DTAV program. Responsibility includes providing the functional oversight, guidance, architecture, and standards needed to develop an integrated and interoperable ITV capability for DOD.

GLOBAL TRANSPORTATION NETWORK

A-8. The GTN, an automated data and communication platform, provides the centralized capability to gather and maintain timely and accurate movement data. The GTN incorporates the best methods, information, and technology available to the DOD and the commercial industry. The source movement data is captured through a broad DOD network of automated information systems. As movement data is captured and stored, the GTN provides worldwide customers access allowing inquiries on in-transit cargo and passengers. Users can query through parameters such as requisition number, national stock number, transportation control number, or social security number. The scope of the GTN, which was initially limited to the transportation systems and networks under the control of USTRANSCOM is evolving to include systems operated by the theater commanders and Services. This provides ITV from origin to final destination transportation activity during peace or war.

A-9. Current visibility capabilities (via GTN) include an air module providing visibility on cargo and passengers from APOE to APOD. It also includes a sealift module providing visibility over surface cargo movements between water ports.

A-10. The present source systems for the air module are the PRAMS, the CAPS II, and the GDSS. The sealift module derives its data from the Mechanized Export Tracking System II, Terminal Management On-Line System, and WPS. The air and sealift modules rely on DLA's DAAS for requisition information. This aggregated data provides the status of requisitions and ITV for passengers and cargo moved on USTRANSCOM component commands' organic, controlled, and charter air and sealift. The capabilities are being designed into the GTN and the applicable subsystems that will be involved.

COMPUTERIZED MOVEMENT PLANNING AND STATUS SYSTEM

A-11. The COMPASS is a FORSCOM unique system designed to meet Army unit movement planning requirements in support of force deployment for joint operations. The COMPASS receives UMD from Active and Reserve Component units, updates joint planning systems (for example, JOPES), and provides transportation related information for mobilization and deployment. The COMPASS is used to maintain the DA standard Equipment Characteristics Data (TB 55-46-1 and the TC-ACCIS ECR) and the DA TUCHA for joint planning purposes.

PRESENT GLOBAL TRANSPORTATION NETWORK SOURCE SYSTEMS

A-12. Need lead in when this FM is updated.

Department of the Army Movement Management System-Redesign

A-13. The DAMMS-R serves as an efficient management information system. It provides a reliable automated information processing capability for planning, programming, coordinating, and controlling movements and transportation resources in a theater of operations during peacetime and wartime. System functions support the readiness mission in garrison and during training exercises to promote the rapid transition to war. DAMMS-R is the standard wartime transportation system for use from TA to separate brigade or ACR level. It provides the TAMCA with a reliable automated capability to support cargo movements, mode asset management, and ITV. It enhances planning, programming, coordination of movements, and control of transportation resources in garrison, during training, and during transition to war. DAMMS-R provides transportation managers the ability to plan, program, and monitor the movement of troops and materiel throughout the theater of operations. DAMMS-R supports the operational and management functions of each echelon of the theater of operation transportation system. It is operated by organizational personnel in a garrison and/or field environment during peacetime, wartime, or OOTW.

A-14. The operational concept for DAMMS-R emphasizes standardized integrated transportation application modules. DAMMS-R operates on standard military tactical computers or comparable nondevelopmental item computers. DAMMS-R, as part of the CSS battlefield functional area control system, is supported by existing peacetime local and long-haul communications systems including the DDN.

A-15. DAMMS-R has seven subsystems. These subsystems include the following:

- Shipment management module.
- MCT operations.
- Transportation addressing subsystem.
- Highway regulation.
- Convoy planning.
- Operational movement programming.
- Mode operations.

A-16. In addition, DAMMS-R will interface with a wide variety of external supply and transportation management information systems. These systems include:

- Cargo Movement Operations System.
- Combat Service Support Control System.
- Global Transportation System.
- Logistics Intelligence File.
- Medical Supply Module of the Theater Army Medical Management Information System.
- Prisoner of War Information System - 2.
- Standard Army Ammunition System.
- Standard Army Retail Supply System - 1.
- Standard Army Retail Supply System - 1, Interim.
- Standard Army Retail Supply System - 2A.
- TC-ACCIS.
- Unit Level Logistics System - Ground.
- Unit Level Logistics System - S4.
- WPS.

The Passenger Reservation and Manifesting System

A-17. The PRAMS is an AMC system that records nonunit passenger reservations, issues boarding passes, and generates the aircraft manifest for fixed AMC APOEs.

The Consolidated Aerial Port System II

A-18. AMC's CAPS II is an umbrella system that includes cargo, passenger, and command and control operations. It provides a standardized worldwide automated network of computers for processing cargo and passengers through the major aerial ports. The cargo system records receipts, staging, and unloading at APOEs, and prints out the aircraft manifest upon completion of loading. The passenger system will accomplish passenger processing, seat allocation, cash collection, flight update processing to ASIFICS/PRAMS, boarding pass, and final manifest preparation/issue.

The Global Decision Support System

A-19. The GDSS records and displays airlift schedules, aircraft arrivals and departures, and aircraft status. It provides executive level decision support and is AMC's primary command and control system. It will be the source of planned and actual itineraries and scheduled allocations for all AMC carriers and tankers. The ADANS is also used to schedule airlift missions (including planned cargo allocation) and will provide schedule/allocation data to the GTN via GDSS.

Terminal Management On-Line System

A-20. This system provides the GTN information about MTMC water terminal operations and cargo accountability. This includes cargo status, planned and actual cargo manifests, location, and disposition information.

Mechanized Export Tracking System II

A-21. MTMC's Mechanized Export Tracking System II will provide the GTN information about surface traffic cargo booking. This includes cargo description and characteristics, status, location, and disposition information.

Worldwide Port System

A-22. The WPS records cargo arrival in a MTMC operated port, staging and outloading cargo. The manifest for ships and appropriate documentation for land movement will also be generated. WPS replaced the DASPS-E, the Terminal Management On-Line Systems TSM, and other MTMC Terminal Support Systems for a fully integrated and standardized Port Operating Support System.

Defense Automated Addressing System

A-23. The DLA's DAAS is the central repository for order status of MILSTRIP transactions between retail and wholesale supply activities.

FUTURE GLOBAL TRANSPORTATION NETWORK SOURCE SYSTEMS

A-24. Additional segments to the transportation pipeline (such as theater and CONUS) and other categories (such as medical patients and personal property) are projected to eventually be embedded into the GTN operational system.

Integrated Booking System

A-25. The IBS will be the unit movement/nonunit resupply traffic management system at MTMC area commands and OCONUS. It will register cargo for sealift, book cargo with ocean carriers, provide schedules for unit arrival at ports, issue port calls to units, and export traffic releases to nonunit resupply cargo. The functions of the METS and the ASPUR will be replaced by the IBS.

CONUS Freight Management System.

A-26. MTMC's CONUS Freight Management System, automates CONUS freight movement and provides a DOD-wide centralized automated information system for the procurement of commercial freight transportation services from "fort to port" in peace and war. Emphasis is on service, economy, and readiness. The CONUS Freight Management System interfaces with multiple DOD transportation, logistics, supply, and financial systems. The interface provides capabilities including cost, carrier selection, movement documentation, prepayment audits, and visibility for shipments of all sizes and weight.

Headquarters On-Line System for Transportation. The

A-27. Headquarters On-Line System for Transportation provides a centralized record of cargo movement requirements to HQ AMC and provides information about air cargo manifests, locations, and status.

Defense Transportation Tracking System.

A-28. The DTTS will provide the GTN information about surface shipments requiring increased surveillance and security while in-transit from CONUS consignor to CONUS consignee.

Integrated Command, Control, and Communications System.

A-29. MSC's IC3 will pass scheduled and actual departure/arrival information, itineraries, and diversions/delays covering sea assets and traffic.

Transportation Coordinators-Automated Information for Movements System.

A-30. The TC-AIMS is the generic term for the Joint Deployment Community's Transportation Automated Command and Control System. TC-AIMS systems are used by transportation coordinators to automate the processes of planning, organizing, coordinating, and controlling unit-related deployment activities supporting the overall deployment process. The Army's TC-ACCIS, already operating, provides ITOs and other movement control organizations the following:

- Unit equipment.
- List data.
- Movement requirements.
- Replies to movement requirements.
- Airlift requests (intratheater).
- Airlift mission schedules.
- File update data.
- Movement event reports.
- Air manifests.
- Passenger manifests.
- Rail load plan data.

USTRANSCOM's Regulating and Command and Control Evacuation System.

A-31. USTRANSCOM's Regulating and Command and Control Evacuation System will integrate the separate processes of medical regulating and aeromedical evacuation, integrating CONUS and separate geographical theaters into a single global system. It will operate with three major groups of information: patient movement requirements; receiving hospital capability; and transportation capability to move patients and provide, by-name, ITV.

GLOBAL COMMAND AND CONTROL SYSTEM

A-32. The GCCS will replace WWMCCS for TPFDD documentation and event reporting. The JPEC will use the GCCS to document movement requirements, transportation closures, and other significant events.

AUTOMATIC IDENTIFICATION TECHNOLOGY

A-33. AIT is a developing concept for employing sophisticated identification technologies to achieve ITV of deployment and distribution operations. It is a means of affixing a technical application (for example, radio frequency tag; microcircuit tag; or bar code) containing movement information to a container or pallet. In this usage, "automatic" refers to the fact that a single entry or retrieval event can result in the capture of a stream of data (from a single character to many thousands). A human operator may or may not be part of the actual entry/retrieval event.

A-34. AIT devices have the capability to store data (transportation, maintenance, and/or supply) permitting rapid and accurate acquisition, retention, and retrieval of source data via several technologies such as radio frequency, contact, or bar scan. Automatic identification includes a spectrum of capabilities including bar coding, microcircuit devices (radio frequency identification) and other sophisticated means of identification. Radio frequency identification, as an example, uses the concept of radio wave transmission and reception to pass information about containers or rolling stock that need to be identified or tracked.

A-35. The information is stored on a device, sometimes referred to as "RF tag," with media storage capability similar to a computer floppy disk. Hand-held or fixed RF interrogators can read the information contained on the RF tag attached to the item and pass it back to a central database. The RF interrogator can also electronically write to the RF tag in order to update information concerning the "tagged" item. It is this remote read/write capability that sets the radio frequency hardware apart from other automatic identification technologies such as LOGMARS.

A-36. USTRANSCOM, Services, and agencies are testing and evaluating AIT applications for containerized/palletized shipments. Based upon application assessments, USTRANSCOM will recommend an AIT standard to the OSD.